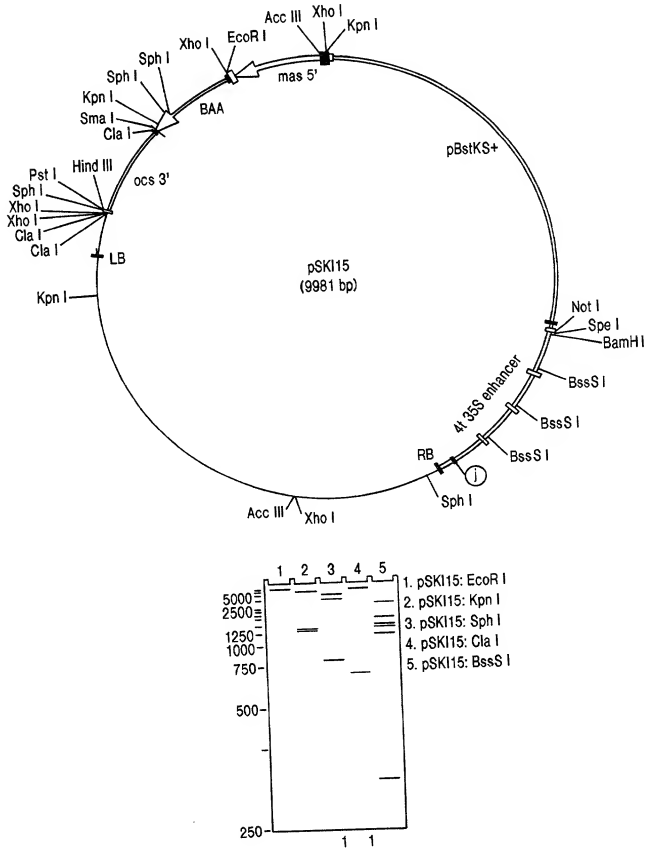
Acc III
Xho I
Kpn I
Xho I
EcoR I
mas 5'
Sph I
Sph I
Kpn I
Sma I
Cla I
BAA
pBstKS+
Pst I
Hind III
ocs 3'
Sph I
Xho I
Xho I
Cla I
Cla I
LB
pSKI15
(9981 bp)
Kpn I
Not I
Spe I
BamH I
BssS I
4t 35S enhancer
BssS I
BssS I
RB
j
Sph I
Acc III
Xho I
1
2
3
4
5
5000
2500
1250
1000
750
500
250
1. pSKI15: EcoR I
2. pSKI15: Kpn I
3. pSKI15: Sph I
4. pSKI15: Cla I
5. pSKI15: BssS I

FIG. 1

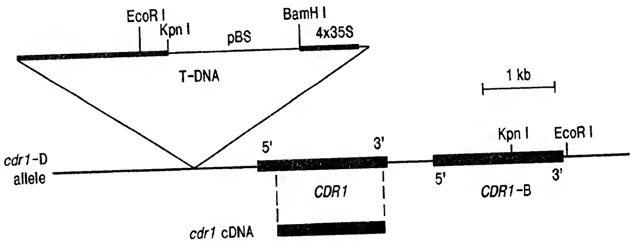
EcoR I
Kpn I
pBS
BamH I
4x35S
T-DNA
1 kb
Kpn I
EcoR I
5'
3'
cdr1-D
allele
5'
3'
CDR1
CDR1-B
cdr1 cDNA

FIG. 2

Deduced amino acid sequence (SEQ ID NO:2)

MASLFSSVLLSLCLLSSLFLSNANAKPKLGFTADLIHRDSPKSPFYNPMETSSQRLRNAIHRSVNRVFHFTEKDNTPQPQ
IDLTSNSGEYLMNVSIGTPPFPIMAIADTGSDLLWTQCAPCDDCYTQVDPLFDPKTSSTYKDVSCSSSQCTALENQASCS
TNDNTCSYSLSYGDNSYTKGNIAVDTLTLGSSDTRPMQLKNIIIGCGHNNAGTFNKKGSGIVGLGGGPVSLIKQLGDSID
GKFSYCLVPLTSKKDQTSKINFGTNAIVSGSGVVSTPLIAKASQETFYYLTLKSISVGSKQIQYSGSDSESSEGNIIIDS
GTTLTLLPTEFYSELEDAVASSIDAEKKQDPQSGLSLCYSATGDLKVPVITMHFDGADVKLDSSNAFVQVSKDLVCFAFR
GSPSFSIYGNVAQMNFLVGYDTVSKTVSFKPTDCAKM

genomic DNA for CDR1 (SEQ ID NO:1)

GGACATTCTT GGTCTACTCC AAGAATATCA AAGATCCAGT CTCAGAAGAC CAGAGGGCTA TTGAGACTTT
TCAACAAAGG GTAATATCGG GAAACCTCCT CGGATTCCAT TGCCCAGCTA TCTGTCACTT CATCGAAAGG
ACAGTAGAAA AGGAAGATGG CTTCTACAAA TGCCATCATT GCGATAAAGG AAAGGCTATC GTTCAAGATG
CCTCTACCGA CAGTGGTCCC AAAGATGGAC CCCCACCCAC GAGGAACATC GTGGAAAAAG AAGACGTTCC
AACCACGTCT TCAAAGCAAG TGGATTGATG TGATATCAAA GATGCGAGAG TTATTTTATT TTAATTGTAC
TATATTTATA TTGTGATGTT TCTCTTAAAT TAAAAATTTA TGACTATATA TATGACAATA TATATATATA
TATATATATA TATATACATT ATTGAGATAG ATAATGAATA CATTAGTTTA TCATTAAATT TAATAGGTAC
TGATCTTCAA ATTATTTTCA AACGATTCTC TGTCAATTTC TTGATATTTT TAAACTAAAA TCCATTTTTT
AAAAAATAGA CTGATTTAAC AAACATTAAA AGTTAATTGT TTCTGTACAT GCCACGGATC GAAAATGAGT
CAGTAAATGA ATATTTTTTA CCTAAAGTCA CACATTGTAT ATACCTAAGT AAATGATACA GACCAAAATT
AGAAGATCAA GAATCCTTAT ATTACGAAAA TATCCGGTTA CATTCGTTGA ATACTTTAAT GAAGAATCTA
GGATATAATT AAAGAAGAAG AAAATATGTA AGCATTTAGA AATAAAATAA CTTGGAGATA TAAGCAAACC
ATAAACACGT CCATATGAAT GAATGGTACA CTCCTCGTAA ATAAATAAAT ATATGCATCA AAATGAGAAA
ATCTTCACTT TTATTTATTC TTAATACGTC AGATTCTCTG AACACAAAAT GATATAATTT GTAGATAACT
TACTCAAAAC GTAAGAACTC ACTATCTATT ATCATTTATT AACCACCATC TCATTAATCT TATAAATATG
TACTCATTAG ATTGTCAAAA GTAAAACCTC ACAATACACT TTAAACTACA AATCAAAACA ATGGCCTCTC
TATTCTCTTC AGTTCTCTTG TCTCTTTGTT TACTCTCTTC ACTTTTTCTC TCAAATGCAA ACGCTAAGCC

FIG. 3A

AAAACTAGGC TTCACCGCGG ATCTAATCCA CCGTGATTCT CCTAAATCGC CGTTCTATAA CCCGATGGAA
ACCTCTTCCC AGCGTCTACG AAACGCGATC CACCGATCCG TTAACCGTGT TTTCCATTTC ACTGAAAAGG
ATAACACACC ACAACCACAG ATTGACCTCA CCTCAAATAG CGGTGAATAT CTCATGAACG TATCCATTGG
AACACCTCCT TTCCCGATCA TGGCCATCGC CGACACCGGA AGTGATCTCC TCTGGACGCA GTGCGCACCA
TGCGATGATT GTTACACTCA AGTTGATCCT CTCTTTGACC CTAAAACGTC TTCCACATAC AAAGACGTTT
CTTGCTCCTC AAGTCAATGT ACTGCCCTAG AAAATCAAGC CTCTTGTTCC ACAAATGACA ACACTTGTTC
TTACTCATTG TCTTACGGGG ATAACTCATA CACAAAGGGT AACATCGCCG TGGATACCTT AACGCTCGGC
TCCAGCGATA CCCGCCCTAT GCAGCTTAAG AATATTATTA TCGGTTGTGG TCACAACAAC GCTGGAACGT
TTAACAAGAA AGGCTCTGGA ATCGTCGGAC TAGGTGGTGG TCCGGTTTCG CTTATCAAGC AACTTGGCGA
CTCCATCGAC GGTAAATTCT CATACTGCTT GGTTCCTCTA ACTTCCAAAA AGGATCAAAC GAGTAAAATC
AACTTCGGAA CCAATGCCAT CGTGTCGGGA TCAGGAGTTG TCTCAACTCC TCTGATCGCA AAGGCGTCTC
AAGAGACCTT CTATTACCTA ACCCTAAAAT CCATTAGCGT GGGAAGCAAG CAAATCCAAT ACTCAGGCTC
AGATTCTGAA AGCAGCGAGG GAAACATCAT CATCGATTCA GGCACAACTT TAACGTTATT ACCGACTGAA
TTTTACTCCG AGCTCGAGGA TGCGGTTGCA TCCTCTATCG ATGCTGAGAA GAAGCAAGAT CCACAAAGCG
GTTTGAGTCT ATGTTACAGT GCAACCGGAG ATCTAAAAGT TCCAGTCATT ACTATGCATT TTGATGGAGC
CGATGTGAAG CTTGACTCCT CCAATGCCTT TGTACAAGTC TCGGAGGATT TGGTTTGCTT TGCCTTCCGC
GGAAGCCCGA GTTTCTCCAT ATACGGTAAT GTGGCGCAGA TGAACTTTCT TGTTGGATAC GACACTGTTT
CCAAAACGGT GTCATTTAAG CCAACAGATT GTGCAAAGAT GTAGTTGTTT CATCTCAACA TGTTTTTCAA
AATTGTGTTT TCAATTACAA TAATGGCTGA TTTAGTTTCA GCCTTAGTTC TTTTGAATTT TTCTAATTCA
CATGTAGTAG TCTATCTTTT CAAGGGAGAG TTAAATTCTC GACCTTTTGT TCTTTTGGTG ATGCTTTGTA
TTTCCTTGAA TTTTCAATCA CAATTAAAAT CATGAAAACC TTATCTCCGG TAACTATTTT CTTGTCCATC
TCTATACTCT GTTTTAGTTT ATAATCATCT CTATGATGTA AACCAAATAT GACAAGACAA TTCTATAATT
TTGTTCAAAA TTTAGTTTTT TTTTTCATTT TACTAATAAA ATCTAGAAAT ACTACTTTTG TGTCTATTAT
ATTATTGTGA TGAAATACTT ATAAGAAACA GATGAATGTG ATTCTAATTC AATATTGCTT TTAAGGAATT
ATATTGGTCC TACTATTCTA TTTTGATGTG TTCTATATTT TACTATATTC AATGGGATTA TGGATTATAG
AAATATTTTG AAAATATTAT ACTATTATTT ATAAATAATT CAATTAGTTT TTCTTCTTAA GTTTCTTATA
AAAAATAAAT ATATCTTATA AGAAATAAAT ATATTTTATA TTTCATAAAA ATCATACATT GTACATATCT
AGGTGGATGA TACATGGCCT AAATTAGATC ATGAATCATA AAAATCCAGC TGTAGATAAA CATAACAAGG

FIG. 3B

ATGAATGGTA CAATCCTGGT CAAAAAAAAT AAAAGGAAAA GTTATATGCA TTAAAATGAG AAAATCTTCG
CTTTTATTGT TTCTTATTTA TCAGATTCTC TAAATGTAAA TGACACAATT TGTAGATAAT TTACTAAAAA
TGTAAGAATC TCATCATGTA CTACCATTTA TGAATCCTTA TCCAATTGAC CTTATAAATA TTACTCATCA
GATTGTCAAA AGTAAAAACT GACCATTCAG GCAATCACTT AAACTACAAT CTAAGAAAAT GGCCTCTCTA
TTCACTTCAC TTCTCTTGTC TCTATGTTTA TTCTCTTCTC CTATTTTCTC AAACGCAAAC GCCAAACCAA
AACTAGGCTT CACCGCGGAT CTGATCCACC GCGATTCTCC TAAATCGCCA TTCTATAACC CGGCGGAAAC
CCCTTCCCAA CGTATGAGAA ACGCTATCCA CCGATCCTTT AACCGTGCTT CCCATTTCAG TAATCTTTTT
GAAAAGGATG CATCACTTAA CGCACCACAA ACTGATATCA CCAAATATTT CGGTATATAT CTTATGAACG
TATCCCTTGG GAGTTGGGAC ACCTCCCGTC CCAATCATGG CGGCCGCTGA CACCGGAAGT GATCTCATCT
GGACGCAGTG CAAACCATGC GATGATTGTT ACACTCAAGT TGATCCTCTC TTTGACCCTA AAGCGTCTTC
CACATACAAA GACGTTTCTT GCCCCTCAAG CCAATGTAGG GCTCTAAAAG ATGATGCTTC TTGTTCCAAA
AAAGACAACA CTTGCTCTTA CTCAATGAAT TACGGGGATA ACTCATACTC ACGGGGTAAT GTCGCTGTGG
ATACCTTAAC GCTCGGCTCC ACCGATAACC GTCCGGTGCA GGTTAAGAAT ATTATCATCG GTTGTGGTCA
CGAAAACGCT GTAACATTTA GAAACAAGAG CTCTGGAATC GTTGGACTTG GTGGTGGTGC GGTTTCGCTC
GTTAAACAAC TCGGAGACTC CATCGAAGGT AAATTCTCAT ACTGCTTGGT ACCTGAAAAT GATCAAACGA
GCAAGATTAG TTTCGGAACC AATGCGGTTG TGTCGGGACC GGGAACTGTC TCAACTCCTT TGGTCGTGAA
GTCTCCAGAG ACCTTCTATT TTCTAACCCT AAAATCTATT ACCGTGGGAA GCAAGAATAT GCCAACCCCA
GGCTCTGATA TCAAGGGAAA CATGGTCATC GATTCGGGCA CAACTCTAAC TCTGTTACCT GGGAAATATT
ATTTCCAGAT TGAGAGTGCT GTTGCGTCTT TAATCGATGC AGAGAGGTCG AAAGATGAAA GAATCGGTTC
GAGTCTTTGA TACAATGCAA CCGCAGATCT GAAAGTCCCA GTCATTACTA TGCATTTCGA TGGAGCAGAT
GTGAAGCTTG ATTCCTATAA TTCATTTTTT AAAGTCTCAG ATGATTTGGT TTGCTTTGCC TTTGGCTTGA
ACTTGATTAC GAGGGATGGG ATATACGGGA ATGTGGCGCA GAAGAACTTT CTTGTTGGAT ACGACACTGT
TTCCAAATCG TTGTCATTTA AAAAAACAGA TTGTGCAAAG ATGTAGATGG TTCAGCTTAG CATGTGGCTA
ATTTCCTTTTTTCAAAAGTATGTTTTCAGTTATCATTATGGCTGATTTGATTTTAGCCTTAAAATAGTTATTTGAATTC

FIG. 3C

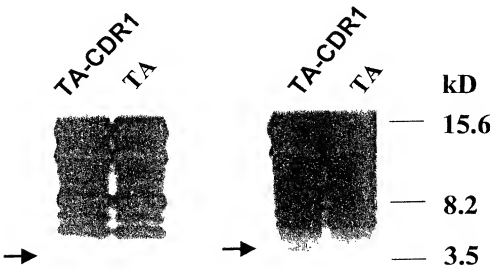

FIG. 4A FIG. 4B